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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/511,057	10/12/2004	Hubert Baumgart	PAT-00293	2264
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Mary E. Golota			EXAMINER	
Cantor Colburn LLP			CHEUNG, WILLIAM K	
201 W. Big Beaver Road				
Suite 1101			ART UNIT	
Troy, MI 48084			PAPER NUMBER	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/511,057

**Applicant(s)**

BAUMGART ET AL.

**Examiner**

WILLIAM K. CHEUNG

**Art Unit**

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**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 April 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3 and 6-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-3, 6-15 and 17-19 is/are allowed.
- 6) ☒ Claim(s) 16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
- Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. In view of the amendment filed April 14, 2008, claims 4, 5 have been cancelled.

Claims 1-3, 6-19 are pending.

2. In view of the amendment filed April 14, 2008, the rejection of Claims 1-3, 6-19 under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Voris et al. (US 7,056,522), is withdrawn.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
4. Claim 16 is rejected under 35 U.S.C. 103(a) as obvious over Voris et al. (US 7,056,522) in view of Herman et al. (US 6,350,463).

16. (Currently Amended) A process for preparing the heat-curable thixotropic mixture of claim 1 comprising

- I) mixing of the at least one oligomer, and/or at least one polymer, or at least one oligomer and at least one polymer (A) and the thixotropic agent (B), and optionally a silica, or
- II) preparing the thixotropic agent (B) by reacting the at least one amine with the at least one polyisocyanate in the presence of the at least one oligomer, and/or at least one polymer, or at least one oligomer and at least one polymer (A), and optionally mixing in a silica,

wherein the at least one oligomer, at least one polymer, or at least one oligomer and at least one polymer are selected from (meth)acrylate copolymers.

Voris et al. (col. 9, line 5 to col. 11, line 52) disclose a mixture composition comprising at least one oligomer and/or polymer that contains at least one allophanate group (col. 10, line 29-47), and an urea or an urea derivative prepared by reacting at least one amine and/or water with at least one polyisocyanate (col. 10, line 48-61).

Regarding the claimed "heat-curable" feature, Voris et al. (col. 9, line 5 to col. 11, line 52) clearly teach a composition that is curable (or crosslinkable). Although Voris et al. do not explicitly indicate that the disclosed curable composition is curable by heat, applicants must recognize that it is well known that the crosslinking reaction of Voris et al. can be accelerated with "heat". Therefore, the examiner has a reasonable basis that Voris et al have met the claimed "heat curable" feature. Regarding the claimed "thixotropic agent" feature, in view of the substantially identical composition of Voris et al. and the composition as claimed, the examiner has a reasonable basis that the claimed "thixotropic agent" is inherently possessed in Voris et al. Since the PTO does

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not have proper means to conduct experiments, the burden of proof is now shifted to applicants to show otherwise. In re Best, 562 F.2d 1252, 195 USPQ 430 (CCPA 1977); In re Fitzgerald, 205 USPQ 594 (CCPA 1980).

Regarding the claimed "(meth)acrylate copolymers", Voris et al. (col. 12, line 14) clearly teach the inclusion of styrene-butadiene rubber (which can be a block copolymer), polyacrylates, polymethacrylates, and polyurethanes (col. 12, line 12-14).

Although the difference between Voris et al. and the claim 16 is that Voris et al. do not disclose that the recited "polyacrylates" and "polymethacrylates" generically include methacrylate copolymers.

However, as affirmed by Herman et al. (col. 10, line 12-14), Herman et al. clearly indicate that polymethacrylates (generically referring to polyacrylates, polymethacrylates or a copolymer thereof). Therefore, motivated by the expectation of success of developing the composition of Voris et al, it would have been obvious to one of ordinary skill in art to recognize and appreciate the values of methacrylate copolymers in the composition teachings of Voris et al. to obtain the "copolymer" feature as claimed.

Voris et al. (col. 10, line 43-44) clearly disclose the use of amine based catalyst, which generically includes the broad number of families of amines being claimed. Voris et al. (col. 9, line 23-34) clearly disclose the use of HDI and other diisocyanates.

### **Response to Arguments**

Applicant's arguments filed April 14, 2008 have been fully considered but they are not persuasive.

Applicants argue that the amended claims requires methacrylate copolymers that contain at least one allophanate group or contain at least one carbamate group and at least one allophanate group. However, applicants fail to recognize that the argument filed is not supported by claim 16 as written. Applicants must recognize does not require a (meth)acrylate copolymers to possess a carbamate group or an allophanate group. Therefore, the rejection of claim 16 is proper.

#### ***Allowances***

5. Claims 1-3, 6-15, 17-19 are allowed.
6. The following is an examiner's statement of reasons for allowance:

As of the date of this office action, the examiner has not located or identified any reference that can be used singularly or in combination with another reference including the closest prior art of Voris et al. (US 7,056,522) to render the present invention anticipated or obvious to one of ordinary skill in the art.

Voris et al. are silent on a composition comprising at least one oligomer, at least one polymer, or at least one oligomer and at least one polymer that contains at least one allophanate group or contain at least one carbamate group and at least one allophanate group, where the at least one oligomer, at least one polymer, or at least one oligomer and at least one polymer is (are) selected from (meth)acrylate copolymers.

1. (Currently Amended) A heat-curable thixotropic mixture containing allophanate groups comprising

(A) at least one oligomer, ~~and/or at least one polymer, or at least one oligomer and at least one polymer~~ that contains at least one allophanate group or contains at least one carbamate group and at least one allophanate group, and

(B) at least one thixotropic agent comprising a urea or a urea derivative prepared by reacting at least one amine, ~~and/or water, or at least one amine and water~~ with at least one polyisocyanate,

wherein the at least one oligomer, at least one polymer, or at least one oligomer and at least one polymer are selected from (meth)acrylate copolymers.

### ***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William K. Cheung whose telephone number is (571) 272-1097. The examiner can normally be reached on Monday-Friday 9:00AM to 2:00PM; 4:00PM to 8:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David WU can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/William K Cheung/  
Primary Examiner, Art Unit 1796

William K. Cheung, Ph. D.

Primary Examiner



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July 31, 2008